

## Recombinant Human MTHFD2, T7-tagged

Cat. No. MTHFD2-393H    Lot. No. (See product label)

### SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>  | Recombinant Human MTHFD2 was expressed in <i>E. Coli</i> using an N-terminal T7 tag. MW=39.56 kDa.                                                                                                                                                                                                                                                     |
| <b>Species</b>           | Human                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>            | E.coli                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>       | This is a nuclear-encoded mitochondrial bifunctional enzyme with methylenetetrahydrofolate dehydrogenase and methenyltetrahydrofolate cyclohydrolase activities. The enzyme functions as a homodimer and is unique in its absolute requirement for magnesium and inorganic phosphate. Formation of the enzyme-magnesium complex allows binding of NAD. |
| <b>Sequence</b>          | 1-344.                                                                                                                                                                                                                                                                                                                                                 |
| <b>Purity</b>            | ~95%.                                                                                                                                                                                                                                                                                                                                                  |
| <b>Specific Activity</b> | n/aH.                                                                                                                                                                                                                                                                                                                                                  |
| <b>Applications</b>      | This recombinant protein can be used for WB, ELISA, MS and neutralization assays.                                                                                                                                                                                                                                                                      |
| <b>Buffer</b>            | 10 mM Tris, pH 8.0, 0.1% Triton X-100, 0.002% NaN <sub>3</sub> .                                                                                                                                                                                                                                                                                       |
| <b>Storage</b>           | Store at -70°C. As with any protein, exposing MTHFD2 recombinant protein to repeated freeze/thaw cycles is not recommended. When working with proteins care                                                                                                                                                                                            |

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should be taken to keep recombinant protein at a cool and stable temperature.

#### SDS-PAGE

SDS PAGE Analysis of MTHFD2 Recombinant Protein. 4-20% SDS gradient gel. Coomassie blue staining.

### GENE INFORMATION

#### Gene Name

MTHFD2 methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase [ Homo sapiens ]

#### Synonyms

MTHFD2; methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 2, methenyltetrahydrofolate cyclohydrolase; NMDMC; methylenetetrahydrofolate dehydrogenase 2; NAD-dependent methylene tetrahydrofolate dehydrogenase cyclohydrolase methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase; EC 1.5.1.15

#### Gene ID

10797

#### mRNA Refseq

NM\_006636

#### Protein Refseq

NP\_006627

#### MIM

604887

#### UniProt ID

P13995

#### Chromosome Location

2p13.1

#### Pathway

Glyoxylate and dicarboxylate metabolism; Metabolic pathways; One carbon pool by folate

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**Function**

binding; hydrolase activity; methenyltetrahydrofolate cyclohydrolase activity;  
methylenetetrahydrofolate dehydrogenase (NADP+) activity; oxidoreductase activity;  
phosphate binding

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